-Meeting Summary-

Day 1: Thursday, December 9, 2010 (8:30 a.m. - 4:00 p.m.)

1. Welcome & Introductions

The meeting was called to order at 8:30 a.m., December 9, 2010, by the Chair of the Delta Independent Science Board (Delta ISB), Dr. Richard Norgaard. Seven members of the Delta ISB were present in person for the meeting: Brian Atwater, Tracy Collier, Michael Healey, Judy Meyer, Jeffrey Mount, Richard Norgaard, and Vince Resh. Elizabeth Canuel teleconferenced from 8:30 a.m. to 1:30 p.m. Edward Houde and John Wiens were absent.

Board Member Disclosures

There were no changes or additions to previous disclosures made at the Sept 30 – Oct 1, 2010 Delta ISB meeting.

2. Delta Stewardship Council Chair and Executive Officer Report

Phil Isenberg, Chair of the Delta Stewardship Council (Council), and Joe Grindstaff, Executive Officer of the Council, presented a variety of information to the Delta ISB. Grindstaff discussed the Notice of Preparation (NOP) for the Environmental Impact Report (EIR) for the Delta Plan, which was provided to the Delta ISB that day. Grindstaff requested that the Delta ISB pay particular attention to the Findings and Performance Measures that will be contained in the Delta Plan. Isenberg provided a status update on the process to develop the Delta Plan and explained that the Bay Delta Conservation Plan (BDCP) will be reviewed and added to the Delta Plan if it meets all the requirements outlined in statute. If the BDCP is not completed before the January 2012 due date for the Delta Plan, it would then be incorporated into the Delta Plan when it is updated (updates are called for every five years). There was additional discussion regarding the use of adaptive management in the Delta Plan and the effects of stressors on the Bay-Delta ecosystem.

3. Overview of December 8, 2010 meeting of the National Research Council (NRC) California Bay-Delta Panels

Richard Norgaard, Michael Healey, Brian Atwater, and Jeff Mount attended the NRC meeting and each provided a summary of highlights from the meeting. Norgaard stated that the NRC meeting seemed more like a science stakeholder meeting than a discussion about the scientific issues at hand. He also questioned if the best available science was being used and noted that the adaptive management process was not yet fully developed. Norgaard said he felt that the climate change discussion was better and that the emerging concept of regime shift is important as changes in the Bay-Delta system are not all stressor driven. Healey reported that the BDCP steering committee provided overviews to the NRC of its process to develop the Bay Delta Conservation Plan, and it was clear how incomplete the BDCP is at this point in time. Healey also stated that based on the comments from the BDCP steering committee there is no agreement on the biological objectives and that the timeframe for completing the plan is quite nebulous. Mount said that he felt that the NRC meeting accomplished little as no new information was reviewed or provided, with one exception: Anke Mueller-Solger's presentation regarding the regime shift in the Delta. Atwater mentioned that one of the questions posed to the NRC was whether or not there is enough water to meet the coequal goals of ecosystem restoration and water supply reliability.

Public comment on this agenda item was provided by:

Greg Zlotnick, San Francisco, State Water Contractors: Also attended the NRC meeting on December 8, 2010 and wanted to ask if it makes sense to try to keep specific species in mind as per the Federal

Endangered Species Act or should some hard decisions be made? Basically, we need to know if we are leaving the Delta alone or trying to restore it.

4. Lead Scientist Report

The Lead Scientist report was presented by Dr. Cliff Dahm, Lead Scientist for the Delta Stewardship Council Science Program. Items he discussed included:

a) Regional Water Board meeting on Sacramento Regional TMDL Permit

The Sacramento Regional County Sanitation District has applied to the Central Valley Regional Water Quality Control Board (CVRWQCB) for a National Pollutant Discharge Elimination System (NPDES) permit for waste discharges. Ultimately, these discharges end up in the Bay-Delta system. Of particular concern is the discharge of ammonium to the system as this appears to be a major stressor. On December 9-10, the CVRWQCB was to hold a public meeting to discuss the merits of the permit application Dahm has a great deal of experience with the effects of ammonium on ecosystems and explained that he would be attending the CVRWQCB meeting later in the day on the 10th to provide his testimony regarding the NPDES permit requirements.

Public comment on this agenda item was provided by:

Kurt Ohlinger, Sacramento Regional County Sanitation District (SRCSD): Regarding an earlier comment that had been made about the SRCSD being "the last domino standing" amongst sanitation districts, Ohlinger stated that historically the requirements now being proposed had not been required by the SRCSD, and that the SRCSD only accounts for about 2% of the flow. He also mentioned that several other sanitation facilities upstream are not currently being held to these requirements.

b) Science and Adaptive Management in the Delta Plan

The Delta Science Program developed a draft two-page outline on Science and Adaptive Management for use in the Delta Plan. This is a draft document still in review, so is not yet public. It is anticipated that some of what is in this outline will be developed further and incorporated into the Delta Plan.

c) Update on 2010 Proposal Solicitation Package (PSP) and Delta Science Fellows

The final review for the Delta Science Fellows applicants will be on January 6, 2011 and the final review panel for the Delta Science Program's 2010 Proposal Solicitation Package will be conducted on January 19-20, 2011. Forty-nine proposals were received in four theme areas (fish ecology, food webs, hydrological/ecosystem modeling and decision support systems) and each has two or more external reviews. Approximately \$8 million is available for disbursement. Dahm will make final recommendations to the Delta Stewardship Council for funding of the best scientific proposals.

The Science Fellows program is administered by Sea Grant for pre- and post-doctoral candidates. There are 17 proposals vying for about \$1.8 million.

d) Central Valley Project (CVP) and State Water Project (SWP) Operations Criteria and Plan (OCAP) Review

Sam Harader, a Program Manager in the Delta Science Program, was asked to provide a summary of the status of this review. Harader explained that at the request of NMFS, USBR and USFWS, the Delta Science Program assembled an independent review panel consisting of national experts who reviewed the OCAP technical team reports and documents and then participated in discussions with the proponents. The panel has provided an independent review and made scientific recommendations. The

products from the review are posted at: http://www.deltacouncil.ca.gov/delta_science_program/events/workshop_OCAP_2010.html

e) Report back from the SCARCE conference in Spain

Dahm attended a conference on December 2-3, 2010 in Girona, Spain, entitled: "Understanding Effects of Global Change on Water Quantity and Quality in River Basins." This conference was presented by SCARCE, an interdisciplinary project, currently in the planning phase, that is intended to address the effects of global change on water as well as multiple stressors on rivers and is being driven by emerging contaminants. The goal of the conference was to provide a better understanding of the effects on aquatic systems that are subjected to multiple stressors.

5. Clarification of Delta ISB role: Statutorily obligated reviews and requests for products (Combined with Item 6)

6. Planning for review of Delta Programs (Combined with Item 5 for discussion)

The Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) states that the Delta ISB "...shall provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta through periodic reviews of each of those programs that shall be scheduled to ensure that all Delta scientific research, monitoring, and assessment programs are reviewed at least once every four years." (Water Code § 85280 (a)(3))

Lauren Hastings, Deputy Executive Officer, Delta Science Program, was asked by the Delta ISB to provide a list of Bay-Delta Programs that the Delta ISB might want to, or has to, review to comply with Water Code § 85280 (a)(3). Hastings explained that the Delta ISB is statutorily obligated to review The Delta Plan and then also provided a short list of potential other programs that the Delta ISB may want to consider reviewing: the Interagency Ecological Program, the Delta Science Program, the Bay Delta Conservation Plan, and possibly even Floodsafe, Suisun Marsh EIR and/or its Plan document, and Dutch Slough. Members of the Delta ISB then discussed the idea of establishing criteria to determine which programs they should review, versus which ones would not qualify for their review. To do this the Delta ISB members determined they would have to define what they considered to be a program, as well as how to define "review" of a program.

It was acknowledged that the Delta Plan would be the program reviewed first as this Plan is the Delta ISB's highest priority and discussion began on how to approach that review. Due to the accelerated pace of the development of the Delta Plan, the Delta ISB committed to meeting monthly between January and May of 2011. During those meetings the ISB will concentrate on commenting on the first and third versions of the draft Plan, and try to complete the stressors report at the January meeting. The Delta ISB expressed uncertainty regarding the best way of reviewing the Suisun Marsh Plan, and requested that the Science Program develop a list of programs that meet the statutory requirements. At the end of this discussion several questions had developed that would best be answered by Grindstaff, so after checking his availability, Hastings made arrangements for Grindstaff to come back in the morning the second day of this meeting.

Public comment on this agenda item was provided by:

Connie Ford, Sacramento County Department of Water Resources: Informed the Delta ISB that the Central Valley Flood Draft Plan was to be presented at the November 2010 Delta Stewardship Council meeting.

Greg Zlotnick, San Francisco, State Water Contractors: Told the Delta ISB that "you are drinking from a fire hose and missing the forest for the trees." He also informed the Delta ISB that the only required document for inclusion into the Delta Plan is the BDCP, and that all other plans or programs are under the category of "may be considered."

7. Public Comment

Public comment was provided by:

Victoria Poage, Delta Native Fishes Recovery Coordinator, U.S. Fish and Wildlife Service Bay-Delta: Informed the Delta ISB that she is the Native Fishes Coordinator for the Delta and would be happy to help. She also explained that she is currently working on writing a recovery plan, and is interested in collaborating with the Delta ISB.

Dr. Valerie Connor, representing herself as a public citizen of California: Appealed to the Delta ISB to use their position to assist in the "plight of state scientists and the need to address this in order to ensure strong Delta science."

8. Preparation for next Delta ISB meeting (item moved from Day 2, item 6)

The board determined that they would meet again on January 12-13 or 13-14, 2011 to host a stressors workshop, as well as February 18 via teleconference. Additional in-person meetings will also be scheduled for March 3-4, 2011, April 7-8, 2011, and May 5-6, 2011, using teleconferencing for those that cannot attend in person at all "in-person" meetings.

The meeting concluded for the day at 4:00 p.m.

Day 2: December 10, 2010 (8:30 a.m. – 12:45 p.m.)

1. Welcome

The meeting was called to order at 8:30 a.m., December 10, 2010, by the Chair of the Delta Independent Science Board (Delta ISB), Dr. Richard Norgaard. Seven members of the Delta Independent Science Board were present in person for the meeting: Brian Atwater, Tracy Collier, Michael Healey, Judy Meyer, Jeffrey Mount, Richard Norgaard, and Vince Resh. Elizabeth Canuel teleconferenced from 8:30 a.m. to 1:30 p.m. Edward Houde and John Wiens were absent.

Joe Grindstaff, Executive Officer of the Council, arrived at 8:30 to answer questions that the Delta ISB had generated during the December 9, 2010 meeting. Particular questions from the Delta ISB related to the Findings that will be prepared as part of the Delta Plan. Grindstaff said he would like the assistance of the Delta ISB with the wording and would like them to make comments regarding the accuracy of the statements within the first draft of the Delta Plan.

The existing assignment on stressors for which a January workshop is scheduled, has been modified based on Grindstaff's clarification to providing an approach for prioritizing stressors as opposed to a more indepth analysis, identification, and grouping of key stressors.

A brief discussion between the Delta ISB members and Grindstaff was held regarding programs that should be reviewed as part of the Delta ISB's statutory obligations. Grindstaff's recommendation was that the Delta ISB focus its primary efforts on reviewing the various drafts of the Delta Plan that will be forthcoming. In

support of those reviews, Grindstaff requested that the Delta ISB become familiar with the biological opinions for salmon and smelt but not specifically conduct a scientific review of the Biological Opinions. Grindstaff specifically requested that the Delta ISB evaluate if there are weaknesses in the biological opinions that could be addressed in the Delta Plan as part of the adaptive management process.

2. Planning for Delta Stressors Report

The next Delta ISB meeting will be held either Jan. 12 and 13 or Jan. 13 and 14, 2011. The ISB is no longer considering hosting a workshop due to the turnaround time requested to produce a product. The focus of the assignment, as noted above, will be to develop a process for ranking stressors. Noted authorities working in this arena will be identified and invited to attend Day 1 of the meeting. These authorities will have national/international focus and include NRC members, and scientists associated with the Chesapeake Bay, Puget Sound, Missouri, Great Lakes, etc., efforts.

The Delta ISB collectively determined that on the first half of Day 1 of that January meeting, speakers with expertise from outside of the Delta will address the Delta ISB, and during the second half of the same day, speakers with expertise directly in the Delta will address the Board. On Day 2, the Delta ISB will prepare a memo to the Delta Stewardship Council regarding their findings and also outline a process.

In preparation for the January 2011 meeting, the Delta ISB will need to engage in a number of individual efforts. Names of potential invitees will need to be submitted to Richard Norgaard and Michael Healey, Chair & Vice-Chair, respectively, who will review them and send out invitations. Delta ISB members have also committed to reviewing specific documents within their respective areas of expertise in preparation for the meeting. These include reviews of the process being developed by the EPA (Healey), NRC (Norgaard), Chesapeake Bay (Houde), BDCP (Mount), POD Synthesis report, Puget Sound Partnership (Collier, Meyer), slow acting stressors that function on a landscape level (Atwater), etc. Each member will prepare a synthesis of the information they obtain and provide those to Lauren Hastings by Jan. 7 so they can be posted with the meeting materials for that meeting on Jan. 10.

Hastings also suggested that the Delta ISB come to the meeting with an outline of the memo they will draft on the second day in order to facilitate the memo's development.

Mount viewed the assignment as having two goals: 1) to organize the discussion of stressors, and 2) the allocation of responsibility. As such, he views the product as more of a policy than science document.

3. Approval of Draft Operating Guidelines for Delta ISB

After some discussion, the draft operating guidelines were adopted unanimously by all board members in attendance (8-0). Some minor edits will be made on pages 2 and 5 by Delta Science Program staff.

4. Lead Scientist Recruitment

Michele Shouse explained the federal (USGS) hiring process and walked the Delta ISB members through a proposed timeline. Some members of the Delta ISB will be part of the interview panel when interviews are scheduled. The Delta ISB members also made it clear that they want to review the federal job announcement prior to its official posting.

Additionally, there was some discussion regarding the salary cap for the position. One suggestion was to contract with the Association of Bay Area Governments (ABAG) with the new lead scientist on a consultant basis. Another suggestion was to request that the USGS provide a housing allowance. Shouse indicated that she would research these suggestions for feasibility.

Healey closed with the observation that although the time line indicates hiring the successful candidate by May, it could be several months before the candidate could begin work. The Science Program was charged with the task of developing interim measures to address this potential eventuality.

5. Public Comment

Public comment was provided by:

Victoria Poage, Delta Native Fishes Recovery Coordinator, U.S. Fish and Wildlife Service Bay-Delta: Discussed the federal section 7 consultation process, informed the Delta ISB that NMFS has developed a recovery plan for Central Valley salmon which addressed stressors, and that she is available to answer questions.

6. Preparation for next Delta ISB meeting (item moved to Day 1, item 8)

The meeting concluded for the day at 12:45 p.m.